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J.H. BAXTER & CO., a California Limited Partnership

April 2, 2009

Ms. Jan Palumbo (AWT-121)
United States EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Subject: **Supplemental Groundwater Investigation Work Plan**
Former J.H. Baxter Arlington Facility
Docket No. RCRA-10-2001-0086

Introduction

The former J.H. Baxter & Co., Inc. (Baxter) Arlington, Washington wood treating facility (the facility) is located at 6520 188th Street NE in Arlington, Washington (Figure 1). The facility is currently operated by Stella-Jones Corporation, and uses pentachlorophenol (PCP) as the primary wood treatment chemical. Numerous investigations and remedial activities have been completed at the facility since the 1990s.

Groundwater monitoring data collected in 2008 as part of the Remedial Action Pilot Test has indicated a narrow pentachlorophenol (PCP) plume that extends beyond the facility boundary. In addition, groundwater elevation data from wells installed as part of the Pilot Test indicate that the groundwater flow is more northerly than previously estimated, and the farthest downgradient and offsite well (MW-18) may not be in the PCP plume flowpath.

Based on a review of groundwater data collected in 2008 as part of the Remedial Action Pilot Test, groundwater elevations in MW-17, MW-37, MW-16, MW-18 and HCMW-7 (Figure 2) indicates groundwater flow is moving in a northerly direction in the northwest corner of the property (Figure 3). Additional borings are recommended in this offsite area to collect grab groundwater samples to delineate the narrow plume. Based on the results of the grab groundwater samples, monitoring wells will be installed in the study area.

The following document summarizes a scope of work (SOW) for the proposed investigation. The proposed SOW will be conducted in accordance with the Environmental Protection Agency (EPA)-approved Site Investigation (SI) Work Plan.

Objectives and Rationale

Data from recently installed groundwater monitoring wells at the facility indicate that a distinct dissolved-phase PCP plume is present downgradient of the Main Treatment Area. During the

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groundwater monitoring events conducted in 2008, PCP was detected in MW-15 at concentrations ranging from 190 to 200 µg/L; in MW-37 at concentrations ranging from 760 to 1,100 µg/L, and non-detect in MW-17, MW-16 and MW-18. MW-18, installed as part of the SI, is currently the farthest downgradient well; therefore, the extent of the plume is unknown. The overall inferred direction of groundwater migration at the property is to the northwest (Figure 3), but trends towards the north in the northwest corner of the property based on the groundwater elevations measured during 2008 in monitoring wells MW-15, MW-16, MW-17, MW-18, MW-37 and MW-HCMW-7 (Figure 3).

The objectives of the supplemental groundwater investigation are to:

- Evaluate the presence and extent of dissolved constituents in groundwater
- Identify the dissolved constituent plume

To accomplish these objectives, Baxter has developed a two phase SOW that includes the installation of 10 direct push boreholes (or equivalent) bisecting the water table, followed by the collection of grab groundwater samples from each of the borings. Based on the results of the groundwater samples, approximately three additional monitoring wells will be installed in phase II of the SOW based on the EPA-approved SI Work Plan.

Scope of Work

This investigation will consist of two phases: 1) installation of 10 exploratory boreholes using direct push technology, or if refusal is encountered, hollow stem auger methods to assess the geometry of the plume, and collection of grab groundwater samples from each boring, and 2) installation of approximately three new groundwater monitoring wells that bisect the water table. The number of new wells and locations will be determined based on the results of the first phase of the investigation.

Phase 1 - Exploratory Boreholes

In order to evaluate the dissolved phase plume offsite and to appropriately locate groundwater wells for long-term plume monitoring, at least 10 soil borings (SB-66 through SB-75) will be installed in or near the Northwest Parcel at approximately 35-feet intervals perpendicular to the inferred groundwater flow direction in two rows approximately 185-feet apart with five borings in each row (Figure 4). Borings will be installed using direct penetration technology (DPT) equipment (if feasible), or hollow-stem auger equipment if refusal is encountered in a boring. Continuous soil samples will be collected for lithologic logging purposes. Field screening of soil will occur at 5-foot intervals. Each boring will be advanced to approximately 5 to 10 feet below the water table for the purpose of obtaining screening-level grab groundwater samples. Due to the anticipated turbidity, analysis of these samples is expected only to provide qualitative data regarding the general geometry of the dissolved-phase groundwater plume. One screening-level grab groundwater sample will be collected from each boring by placing in each borehole 1-inch schedule 40 polyvinyl chloride (PVC) casing with 10 feet of 0.010-inch factory slotted screen (slot size 10) and collecting the sample using a peristaltic pump or a stainless-steel mini bailer. Submersible pumps cannot be used in DPT boreholes due to the limited borehole diameter. The slotted screen will be placed at the bottom of each borehole. Using such temporary well casing

allows for the collection of a more representative groundwater sample than a shielded screen drive point sampler. The samples will be analyzed for PCP only.

If the width of the groundwater plume is not bounded by these groundwater grab samples, additional borings will be drilled at 50-foot intervals perpendicular to the direction of groundwater flow until the chemical of potential concern (COPC) PCP is not detected.

The southernmost proposed boring locations are located on property not owned by Baxter, and will require an access agreement. If an access agreement cannot be obtained from the current property owner, the southernmost row of boreholes will be moved farther south onto Baxter property, following notification to EPA. The remaining boreholes will be located on the City of Arlington right-of-way.

Phase 2 – Monitoring Well Installation

Based on the results of the groundwater sampling, approximately three new groundwater monitoring wells will be installed to provide additional downgradient groundwater sampling stations. These wells will be identified as MW-38, MW-39 and MW-40, and likely be installed offsite near the 188th Avenue NE. Well borings will be installed using hollow-stem auger drilling equipment to a depth approximately 10-feet below the seasonal low water table (approximately 50-feet below ground surface). Soil samples will be collected every five feet to the bottom of the boring for lithologic logging purposes. The monitoring wells will be constructed using 2-inch diameter, Schedule 40 PVC casing. Following well construction and a minimum 24-hour grout stabilization period, the wells will be developed.

Following installation, the wells will be measured for horizontal control by a Washington State licensed surveyor. Vertical elevation will be surveyed to the nearest 0.01 foot at the top of all new monitoring well casings.

Upon completion of monitoring well installation activities, all facility wells will be gauged with a water level indicator. The new wells will be sampled for PCP in accordance with the Performance Monitoring Plan (PMP) in future quarterly monitoring events.

All field procedures will be conducted in accordance with procedures outlined in the Appendix B (Sampling and Analysis and Data Management Plan) of the SI Work Plan, dated May 15, 2002.

Decontamination Procedures

The drilling and sampling will be cleaned before and between boreholes using tap water containing a non-phosphate detergent (e.g., Liquinox), followed by a tap water rinse, and lastly, distilled water. All decontamination fluids and purge water will be collected into a 55-gallon drum, and transferred to the onsite treatment system. Drill cuttings from the direct-push or hollow-stem auger equipment will be placed into a 55-gallon drum for subsequent disposal.

After performing the soil and groundwater sampling, each of the temporary boreholes will be backfilled to grade with bentonite pellets and if necessary, patched to match the existing surface.

Schedule

Baxter plans to conduct the scope of work outlined in this Supplemental Groundwater Investigation Work Plan within 30 days of receipt of approval from EPA, pending obtaining access agreements with offsite landowners and the City of Arlington. Results of the field activities will be submitted to EPA in the monthly progress reports and in quarterly O&M reports.

References

Baxter 2002. Site Investigation Work Plan, Revision 2, J.H. Baxter & Co., Arlington, Washington Facility. Prepared by J.H. Baxter & Co. May.

If you have any questions regarding this Work Plan, please do not hesitate to contact Stephen Barnett at (503) 241-8172 or me at (541) 968-9768.

Sincerely,

RueAnn Thomas

cc: Georgia Baxter, J. H. Baxter & Co.
J Stephen Barnett, Premier Environmental Services.
Gary Dupuy, AMEC/Geomatrix

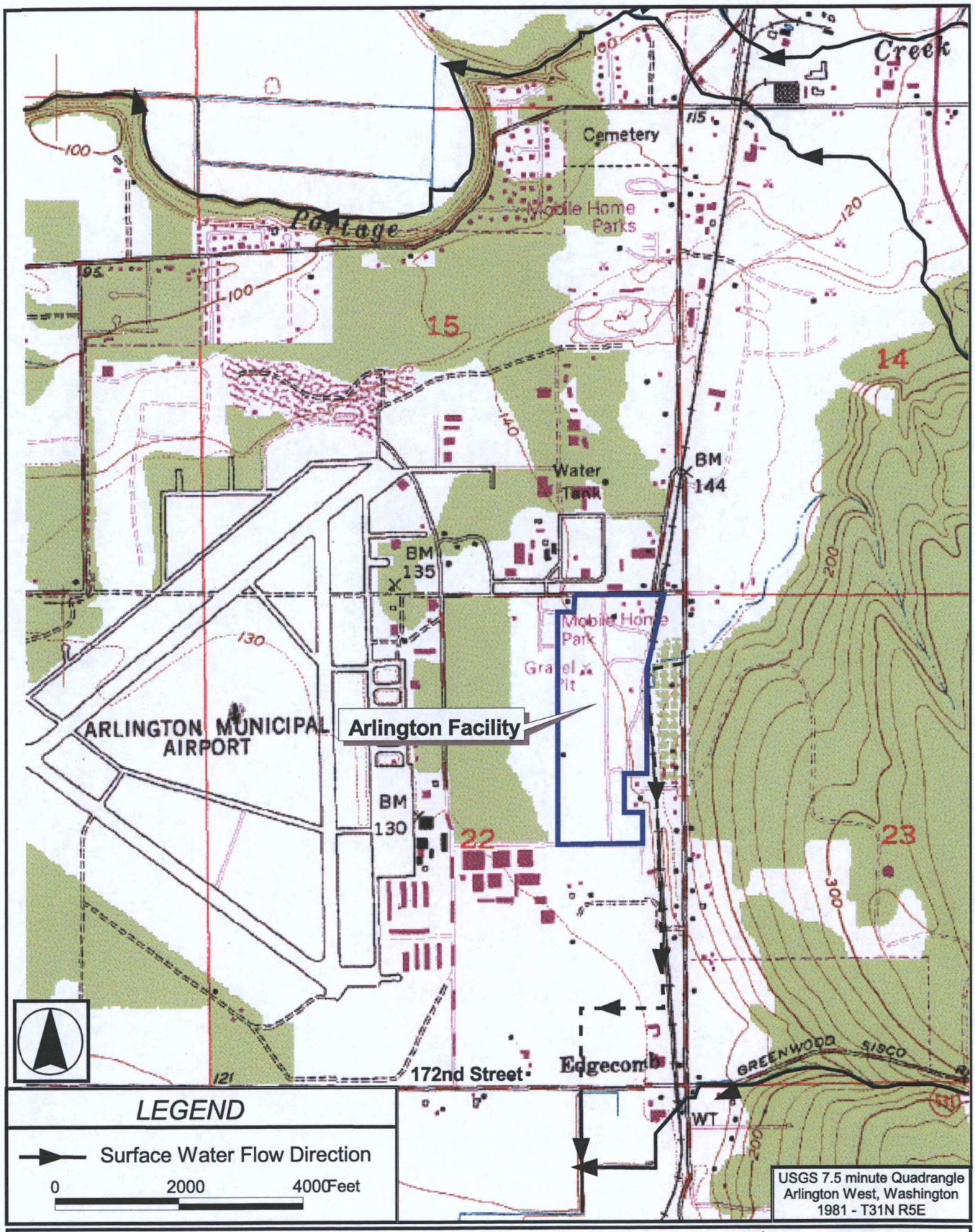

Figure 1. Site Vicinity

PREMIER J.Baxter

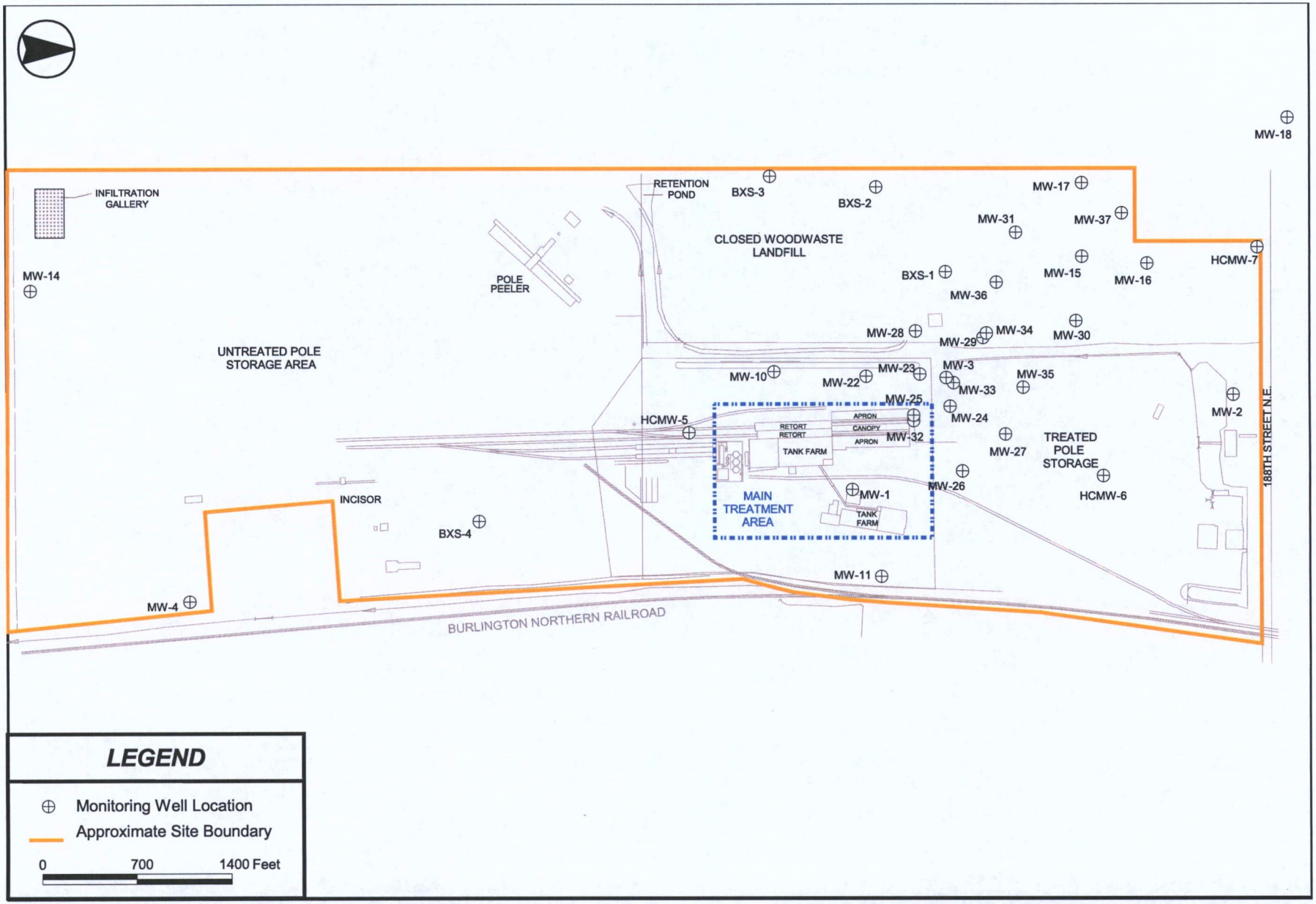

Figure 2. Well Location Map

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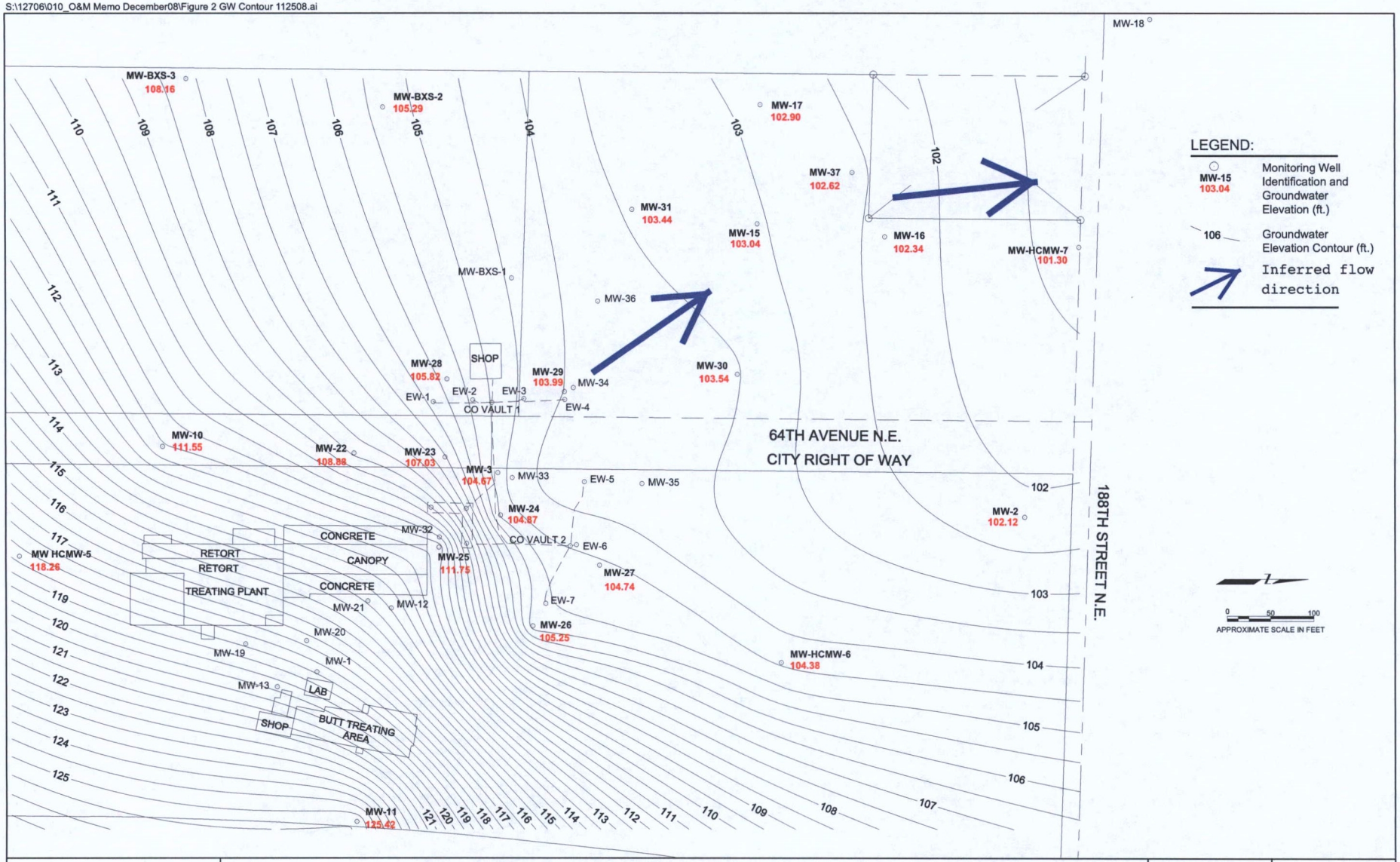

AMEC Geomatrix	NOVEMBER 25, 2008 GROUNDWATER ELEVATION CONTOUR MAP Former J.H. Baxter and Co. Wood Treating Facility Arlington, Washington	Prepared By:	Project No.
		Date:	Figure 3

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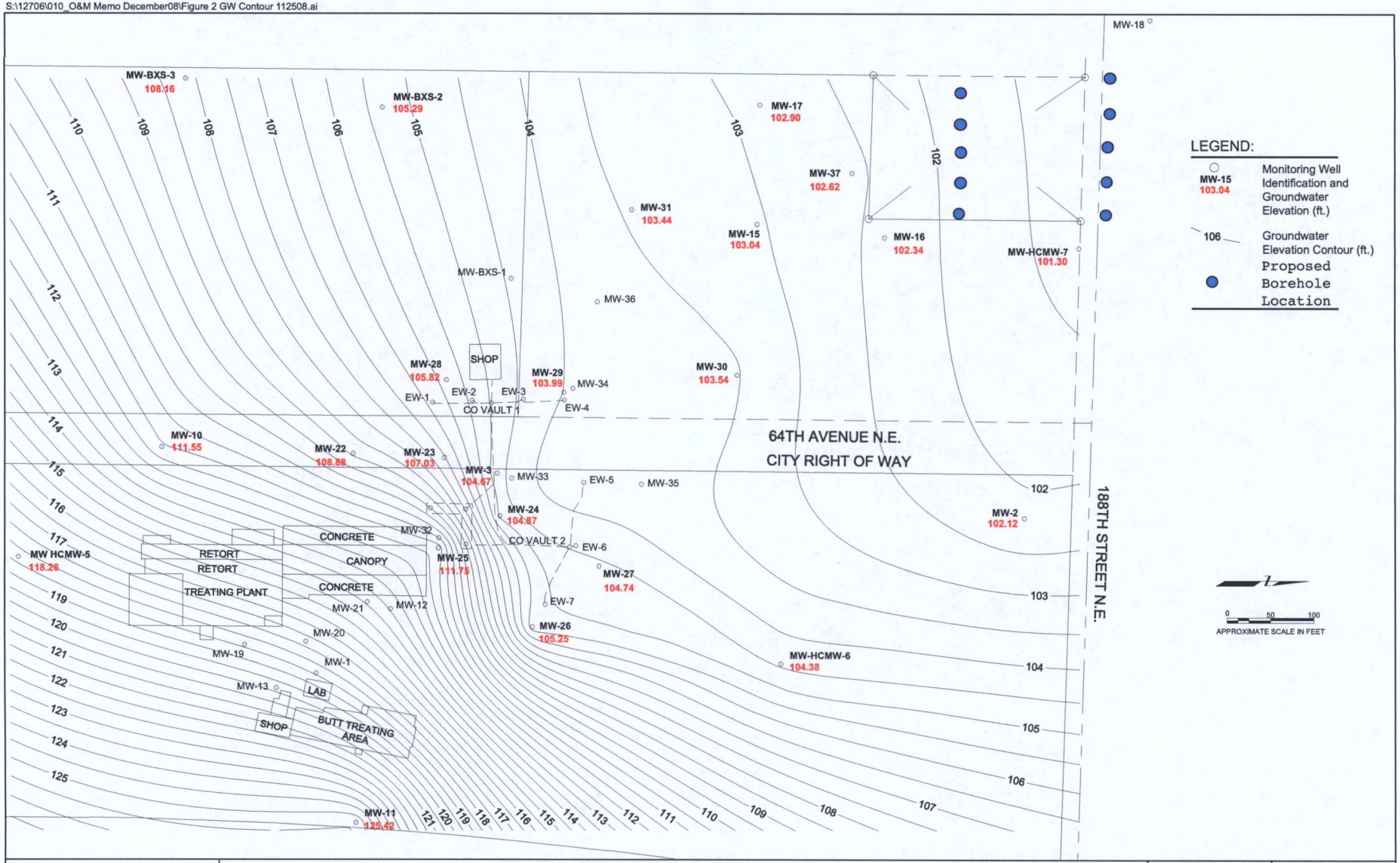

PROPOSED BOREHOLE LOCATION MAP
Former J.H. Baxter and Co. Wood Treating Facility
Arlington, Washington

Prepared By:	Project No.
Date:	Figure 4